

Serial No. 10/043,649
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proteins that lack the N-terminal myristylation sequence that facilitates membrane localization and inhibition of antigen receptor-induced lymphocyte activation by SLIM protein. In a preferred embodiment, such a SLIM variant has a point mutation at the second amino acid residue (Gly) of the amino acid sequence set forth in Figure 2A. In another preferred embodiment, SLIM variants that are unable to bind to tyrosine phosphorylated SLIM binding partners, which include tyrosine kinases and phosphatases that are modulated by antigen receptor activation, are provided. Such SLIM variants include SLIM proteins that lack an N-terminal SH2 domain. In another preferred embodiment, SLIM variants that are unable to bind to SLIM binding partners comprising proline rich regions are provided. Such SLIM variants include SLIM proteins that lack an N-terminal SH3 domain.

X 19 On page 64, immediately preceding the heading "CLAIMS," please insert the enclosed text entitled "SEQUENCE LISTING."

IN THE CLAIMS

Please replace the claims with the amended claim set that follows:

1. (Amended) A SLIM nucleic acid encoding a SLIM protein, comprising a nucleic acid sequence having at least about 90% identity to the nucleic acid sequence set forth in Figure 2A (SEQ ID NO:1), wherein said SLIM protein comprises an N-terminal myristylation sequence, an N-terminal SH2 domain, and an N-terminal SH3 domain and will bind to Cbl.
2. The SLIM nucleic acid according to Claim 1, wherein said SLIM protein lacks a tyrosine kinase domain.
3. (Amended) The SLIM nucleic acid according to Claim 2, further comprising the nucleic acid sequence set forth in Figure 2A (SEQ ID NO:1).

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4. (Amended) A SLIM nucleic acid encoding a SLIM protein, comprising a nucleic acid sequence having at least about 90% identity to the nucleic acid sequence set forth in Figure 2A (SEQ ID NO:1), wherein said SLIM protein comprises an N-terminal myristylation sequence and an N-terminal SH2 domain and is unable to bind to Cbl.

5. (Amended) A SLIM nucleic acid encoding a SLIM protein, comprising a nucleic acid sequence encoding an amino acid sequence having at least about 90% identity to the amino acid sequence set forth in Figure 2A (SEQ ID NO:2).

6. (Amended) A SLIM protein, comprising an amino acid sequence having at least about 90% identity to the amino acid sequence set forth in Figure 2A (SEQ ID NO:2), wherein said SLIM protein comprises an N-terminal myristylation sequence, an N-terminal SH2 domain, and an N-terminal SH3 domain and will bind to Cbl.

7. (Amended) The SLIM protein according to Claim 6, further comprising the amino acid sequence set forth in Figure 2A (SEQ ID NO:2).

8. (Amended) A SLIM protein, comprising an amino acid sequence having at least about 90% identity to the amino acid sequence set forth in Figure 2A (SEQ ID NO:2), wherein said SLIM protein comprises an N-terminal myristylation sequence and an N-terminal SH2 domain and is unable to bind to Cbl.

9. (Amended) A method for screening for a bioactive agent capable of binding to SLIM, comprising:
a) contacting a SLIM protein and a candidate agent; and
b) determining the binding of candidate bioactive agent to SLIM protein;
wherein said SLIM protein comprises an amino acid sequence having at least about 95% identity to the amino acid sequence set forth in Figure 2A (SEQ ID NO:2).

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10. (Amended) A method for screening for a bioactive agent capable of modulating SLIM binding, comprising:

a) combining a SLIM protein, a candidate bioactive agent and Cbl; and
b) determining the binding of Cbl to SLIM in the presence of candidate bioactive agent; wherein said SLIM protein comprises an amino acid sequence having at least about 95% identity to the amino acid sequence set forth in Figure 2A (SEQ ID NO:2) and wherein said SLIM protein will bind to Cbl in the absence of candidate bioactive agent.

11. (Amended) A method for screening for a bioactive agent capable of modulating lymphocyte activation, comprising:

a) contacting a candidate bioactive agent to a lymphocyte comprising a recombinant nucleic acid encoding a SLIM protein;
b) inducing activation of said lymphocyte; and
c) determining the activation of said lymphocyte in the presence and absence of said candidate bioactive agent;
wherein said SLIM protein comprises an amino acid sequence having at least about 95% identity to the amino acid sequence set forth in Figure 2A (SEQ ID NO:2), and wherein a difference in the activation of said lymphocyte in the presence and absence of said candidate bioactive agent indicates that said candidate bioactive agent is capable of modulating lymphocyte activation.

12. (Amended) The method according to Claim 11, wherein said SLIM protein comprises the amino acid sequence set forth in Figure 2A (SEQ ID NO:2).

13. The method according to Claim 11, wherein lymphocyte activation is done by activating antigen receptor in said lymphocyte.